



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Jeffrey Lutze et al.  
Title: Self Aligned Non-volatile Memory Cell and Process for Fabrication  
Application No.: 10/600,259 Filing Date: June 20, 2003  
Examiner: Not yet assigned Group Art Unit: 2818  
Docket No.: SNDK.310US0 Conf. No.: 7482

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Dear Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant(s) call(s) the documents listed on the enclosed Form PTO-1449 to the Examiner's attention in this patent application.

☒ Copies of the documents listed on the accompanying Form PTO-1449 are enclosed.


Citation of these documents shall not be construed as (1) an admission that the documents are prior art with respect to the invention or inventions claimed in this application, (2) a representation that a search has been made (other than as indicated by any cited document), or (3) an admission that the cited information is, or is considered to be, material to patentability as defined in § 1.56(b).

This information disclosure statement is submitted under 37 C.F.R. § 1.97(b) and consequently no fee should be required. The Commissioner is authorized, however, to charge any fee that may be required, or to credit any overpayment, against Deposit Account No. 502664. This form is being submitted in duplicate.

EXPRESS MAIL NO.:

EV437667867US

Respectfully submitted,

 July 13, 2004  
Gerald P. Parsons Date  
Reg. No. 24,486

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| U.S. Department of Commerce, Patent and Trademark |  |  |  | Atty. Docket No.     |  | Application No. |  |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT     |  |  |  | SNDK.310US0          |  | 10/600,259      |  |
| (Use several sheets if necessary)                 |  |  |  | Applicant(s)         |  |                 |  |
|   |  |  |  | Jeffrey Lutze et al. |  |                 |  |
|   |  |  |  | Filing Date          |  | Group           |  |
|   |  |  |  | 06/20/03             |  | Unknown         |  |

| U.S. Patent Documents |     |                 |           |                          |       |          |                            |
|-----------------------|-----|-----------------|-----------|--------------------------|-------|----------|----------------------------|
| *Examiner Initial     |     | Document Number | Date      | Name                     | Class | Subclass | Filing Date If Appropriate |
|                       | 001 | 6,529,410       | 3/2003    | Han et al.               |       |          |                            |
|                       | 002 | 6,295,227       | 9/2001    | Sakui et al.             |       |          |                            |
|                       | 003 | 5,640,032       | 6/17/1997 | Yugo Tomioka, Tokyo (JP) |       |          |                            |
|                       | 004 | 5,070,032       | 12/3/1991 | Yuan et al.              |       |          |                            |
|                       | 005 | 5,923,976       | 7/13/1999 | Kim                      |       |          |                            |
|                       | 006 | 6,297,097       | 10/2/2001 | Jeong                    |       |          |                            |
|                       | 007 | 5,981,335       | 11/9/1999 | Chi                      |       |          |                            |
|                       | 008 | 5,343,063       | 8/30/1994 | Yuan et al.              |       |          |                            |

| U.S. Published Patent Application Documents |     |                   |           |               |       |          |                            |
|---|-----|-------------------|-----------|---------------|-------|----------|----------------------------|
| *Examiner Initial                           |     | Document Number   | Date      | Name          | Class | Subclass | Filing Date If Appropriate |
|   | 009 | U.S. 2002/0093073 | 7/18/2002 | Mori et al.   |       |          |                            |
|   | 010 | U.S. 2004/0070021 | 4/15/2004 | Yuan, Jack H. |       |          |                            |
|   |     |                   |           |               |       |          |                            |
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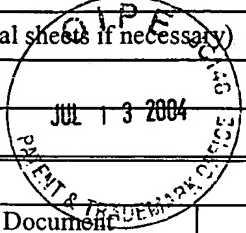
| OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.) |  |  |
|--|--|--|
| 011  | International Search Report, PCT/US03/32119 filed 08/10/2003   |  |
| 012  | U.S. Patent Application No. 09/667,344 . Yuan et al. 9/22/2000   |  |
| 014  | Aritome, Seiichi, "Advanced Flash Memory Technology and Trends for File Storage Application," IEDM Technical Digest, International Electronic Devices Meeting, IEEE, San Francisco, California, December 10-13, 2000, pp 33.1.1-33.1.4.    |  |
| 014  | Takeuchi, Y., et al., "A Self-Aligned STI Process Integration for Low Cost and Highly Reliable IGbit Flash Memories," 1998 Symposium on VLSI Technology; Digest of Technical Papers, IEEE, Honolulu, Hawaii, June 9-11, 1998, pp. 102-103. |  |
| 015  | Lee, Jae-Duk, et al., "Effects of Parasitic Capacitance on NAND Flash Memory Cell Operation," Non-Volatile Semiconductor Memory Workshop, IEEE, Monterey, California, August 12-16, 2001, pp. 90-92.                                       |  |

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| Examiner | Date Considered |
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.

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| (Use several sheets if necessary)  |     |   |                 | Jeffrey Lutze et al. |       |                 |                            |
|   |     |   |                 | Filing Date          |       | Group           |                            |
|  |     |   |                 | 06/20/03             |       | Unknown         |                            |
| <b>U.S. Patent Documents</b>   |     |   |                 |                      |       |                 |                            |
| *Examiner Initial  |     | Document Number   | Date            | Name                 | Class | Subclass        | Filing Date If Appropriate |
|  |     |   |                 |                      |       |                 |                            |
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| <b>U.S. Published Patent Application Documents</b>   |     |   |                 |                      |       |                 |                            |
| *Examiner Initial  |     | Document Number   | Date            | Name                 | Class | Subclass        | Filing Date If Appropriate |
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|  |     |   |                 |                      |       |                 |                            |
| <b>OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)</b>  |     |   |                 |                      |       |                 |                            |
|  | 016 | Hori et al., "A MOSFET with Si-implanted Gate-SiO <sub>2</sub> Insulator for Nonvolatile Memory Applications," IEDM 92, April 1992, pp. 469-472.  |                 |                      |       |                 |                            |
|  | 017 | Chan, et al., "A True Single-Transistor Oxide-Nitride-Oxide EEPROM Device," <i>IEEE Electron Device Letters</i> , Vol. EDL-8, No. 3, March 1987, pp. 93-95.   |                 |                      |       |                 |                            |
|  | 017 | Nozaki et al., "A 1-Mb EEPROM with MONOS Memory Cell for Semiconductor Disk Application," <i>IEEE Journal of Solid State Circuits</i> , Vol. 26, No. 4, April 1991, pp. 497-501.                                |                 |                      |       |                 |                            |
|  | 017 | Eitan et al., "NROM: A Novel Localized Trapping, 2-Bit Nonvolatile Memory Cell," <i>IEEE Electron Device Letters</i> , Vol. 21, No. 11, November 2000, pp. 543-545.   |                 |                      |       |                 |                            |
|  | 020 | DiMaria et al., "Electrically-alterable read-only-memory using Si-rich SiO <sub>2</sub> injectors and a floating polycrystalline silicon storage layer," <i>J. Appl. Phys.</i> 52(7), July 1981, pp. 4825-4842. |                 |                      |       |                 |                            |
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|  |     |   |                 |                      |       |                 |                            |
| Examiner   |     |   | Date Considered |                      |       |                 |                            |
| <b>*EXAMINER:</b> Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant. |     |   |                 |                      |       |                 |                            |